

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shrenik Deliwala :  
Serial No.: Not yet known : Attorney Docket No.: 53168-500301D3  
Filed: February 15, 2002 :  
For: INTEGRATED OPTICAL/ELECTRONIC :  
CIRCUITS AND ASSOCIATED :  
METHODS OF SIMULTANEOUS :  
GENERATION THEREOF :

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INFORMATION DISCLOSURE STATEMENT  
PURSUANT TO 37 C.F.R. §§ 1.56 ET SEQ.

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Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

In accordance with 37 C.F.R. § 1.97(b), the above-identified Applicants cite the following patents and publications, which may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 C.F.R. § 1.56. In compliance with 37 C.F.R. § 1.98(d), copies of the patents and publications set forth below and listed on the attached Forms PTO-1449 and PTO/SB/08A (5 sheets) have not been provided because they were cited in grand parent application no. 09/859,693 or parent application no. 09/991,542.

**EXPRESS MAIL CERTIFICATE (37 C.F.R. § 1.10)**

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Date of Deposit February 15, 2002

I hereby certify that this paper, and the papers and/or fees referred to herein as transmitted, submitted or enclosed, are being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Name Daniel H. Golub

Signature 

1c971 U.S. PTO  
10/076920  
02/15/02

Patent No.	Patentee	Issue Date
6,177,685 B1	Teraguchi et al.	January, 2001
6,188,818 B1	Han et al.	February, 2001
6,166,846	Maloney	December, 2000
6,075,908	Paniccia et al.	June, 2000
6,122,419	Kurokawa	September, 2000
5,864,642	Chun et al.	January, 1999
5,872,360	Paniccia et al.	February, 1999
5,835,646	Yishimura et al.	November, 1998
5,696,862	Hauer et al	December, 1997
4,677,783	Cratsa	July, 1987
5,638,469	Feldman et al.	June, 1997
5,629,838	Knight et al.	May, 1997
5,625,729	Brown	April, 1997
5,625,636	Bryan et al.	April, 1997
5,605,856	Goosen et al.	February, 1997
5,568,574	Tanguay, Jr. et al.	October, 1996
5,502,779	Magel	March, 1996
5,485,021	Abe	January, 1996
5,434,434	Kasahara et al.	July, 1995
5,432,630	Lebby et al.	July, 1995
5,400,419	Heinen	March, 1995
5,198,684	Sudo	March, 1993
5,159,700	Reid, deceased et al.	October, 1992
5,153,770	Harris	October, 1992
5,061,027	Richard	October, 1991
4,966,430	Weidel	October, 1990
4,939, 793	Stewart	July, 1990
4,917,450	Pocholle	April, 1990
4,871,224	Karstensen	October, 1989
4,865,427	Kingston et al.	September, 1989
4,761,620	Bar-Joseph et al.	August, 1988
4,758,092	Heinrich et al.	July, 1988
4,695,120	Holder	September, 1987
4,422,088	Gfeller	December, 1983

<b>Patent Appl. Publication No.</b>	<b>Patentee/Applicant</b>	<b>Publication Date</b>
US 2001/0031112 A1	Frish et al.	October 18, 2001
US 2001/0031113 A1	Frish et al.	October 18, 2001

### **Other References**

Michael C. Parker et al., Applications of Active Arrayed-Waveguide Gratings in Dynamic WDM Networking and Routing, Journal of Lightwave Technology, Vol. 18, No. 12, December 2000.

Bardia Pezeshki et al., Vertical Cavity Devices as Wavelength Selective Waveguides, Journal of Lightwave Technology, Vol. 12, No. 10, October 1994.

Lucent Technologies, Bell Labs Innovations, Arrayed Waveguide Grating Multiplexer/Demultiplexer, January 2000.

Robert Shi and Tomasz Jansson, Optical Interconnection Foundations and Applications, Chapter 5, Integrated Optical Waveguide Routing—Micro-optics, Artech House, pp. 141-225.

Amalia N. Miliou et al., A 1.3- $\mu\text{m}$  Directional Coupler Polarization Splitter by Ion Exchange, Journal of Lightwave Technology, Vol. 11, No. 2, February 1993.

Gijs J. M. Krijnen et al., A New Method for the Calculation of Propagation constants and Field Profiles of Guided Modes of Nonlinear Channel Waveguides Based on the Effective Index Method, Journal of Lightwave Technology, Vol. 12, No. 9, September 1994.

Applicants respectfully request that these items be considered by the Examiner, and that the Examiner acknowledge consideration of these references by initialing and returning copies of the enclosed Forms PTO-1449 and PTO/SB/08A with the next official action.

While this Information Disclosure Statement may be "material" pursuant to 37 C.F.R. § 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to herein is "prior art" for this invention or otherwise material to the patentability of this invention as defined in 37 C.F.R. § 1.56.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(b) exists.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "D.H. Golub", is written over a horizontal line.

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Attorney for Applicant

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215.963.5055

Dated: February 15, 2002

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE  
(MODIFIED) PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.  
53168-500301D3

SERIAL NO.  
Not yet known

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT  
(Use several sheets if necessary)

(37 C.F.R. § 1.98(b))

APPLICANT  
Shrenik Deliwala

FILING DATE  
February 15, 2002

GROUP  
Not yet known

10/076920  
02/15/02

### U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER							ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A	6	1	7	7	6	8	5	01/01	Teraguchi et al.			
	B	6	1	8	8	8	1	8	02/01	Han et al.			
	C	6	1	6	6	8	4	6	12/00	Maloney			
	D	6	0	7	5	9	0	8	06/00	Paniccia et al.			
	E	6	1	2	2	4	1	9	09/00	Kurokawa			
	F	5	8	6	4	6	4	2	01/99	Chun et al.			
	G	5	8	7	2	3	6	0	02/99	Paniccia et al.			
	H	5	8	3	5	6	4	6	11/98	Yishimura et al.			
	I	5	6	9	6	8	6	2	12/97	Hauer et al.			
	J	4	6	7	7	7	8	3	07/87	Cratsa			
	K	5	6	3	8	4	6	9	06/97	Feldman et al.			

### FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER							PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
													YES	NO

### OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

		L	Michael C. Parker et al., Applications of Active Arrayed-Waveguide Gratings in Dynamic WDM Networking and Routing, Journal of Lightwave Technology, Vol. 18, No. 12, December 2000.
		M	Bardia Pezeshki et al., Vertical Cavity Devices as Wavelength Selective Waveguides, Journal of Lightwave Technology, Vol. 12, No. 10, October 1994.
		N	Lucent Technologies, Bell Labs Innovations, Arrayed Waveguide Grating Multiplexer/Demultiplexer, January 2000.
		O	Robert Shi and Tomasz Jansson, Optical Interconnection Foundations and Applications, Chapter 5, Integrated Optical Waveguide Routing – Micro-optics, Artech House, pp. 141-225.
		P	Amalia N. Miliou et al., A 1.3 $\mu$ m Directional Coupler Polarization Splitter by Ion Exchange, Journal of Lightwave Technology, Vol. 11, No. 2, February 1993.
		Q	Gijs J. M. Krijnen et al., A New Method for the Calculation of Propagation constants and Field Profiles of Guided Modes of Nonlinear Channel Waveguides Based on the Effective Index Method, Journal of Lightwave Technology, Vol. 12, No. 9, September 1994.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (MODIFIED) PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 C.F.R. § 1.98(b))	ATTY. DOCKET NO. 53168-500301D3	SERIAL NO. Not yet known
	APPLICANT Shrenik Deliwala.	
	FILING DATE February 15, 2002	GROUP Not yet known

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EXAMINER INITIAL		PATENT NUMBER							ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	R	5	6	2	9	8	3	8	05/97	Knight et al.			
	S	5	6	2	5	7	2	9	04/97	Brown			
	T	5	6	2	5	6	3	6	04/97	Bryan et al.			
	U	5	6	0	5	8	5	6	02/97	Goosen et al.			
	V	5	5	6	8	5	7	4	10/96	Tanguay, Jr. et al.			
	W	5	5	0	2	7	7	9	03/96	Magel			
	X	5	4	8	5	0	2	1	01/96	Abe			
	Y	5	4	3	4	4	3	4	07/95	Kasahara et al.			
	Z	5	4	3	2	6	3	0	07/95	Lebby et al.			
	AA	5	4	0	0	4	1	9	03/95	Heinen			
	BB	5	1	9	8	6	8	4	03/93	Sudo			

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February 1971  
U.S. PATENT DOCUMENTS

U.S. PATENT DOCUMENTS										FILING DATE IF APPROPRIATE
EXAMINE R INITIAL	PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS					
CC	5 1 5 9 7 0 0	10/92	Reid, deceased et al.							
DD	5 1 5 3 7 7 0	10/92	Harris							
EE	5 0 6 1 0 2 7	10/91	Richard							
FF	4 9 6 6 4 3 0	10/90	Weidel							
GG	4 9 3 9 7 9 3	07/90	Stewart							
HH	4 9 1 7 4 5 0	04/90	Pocholle							
II	4 8 7 1 2 2 4	10/89	Karstensen							
JJ	4 8 6 5 4 2 7	09/89	Kingston et al.							
KK	4 7 6 1 6 2 0	08/88	Bar-Joseph et al.							
LL	4 7 5 8 0 9 2	07/88	Heinrich et al.							
MM	4 6 9 5 1 2 0	09/87	Holder							

6	9	5	1	2	0	09/87	Holder		
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION									
		COUNTRY OR		CLASS		SUBCLASS			

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EXAMINE R INITIAL		PATENT NUMBER								ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	NN	4	4	2	2	0	8	8		12/83	Gfeller			

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														YES	NO

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**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**